

This Page Is Inserted by IFW Operations  
and is not a part of the Official Record

## **BEST AVAILABLE IMAGES**

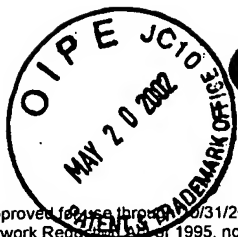
Defective images within this document are accurate representations of the original documents submitted by the applicant.

Defects in the images may include (but are not limited to):

- BLACK BORDERS
- TEXT CUT OFF AT TOP, BOTTOM OR SIDES
- FADED TEXT
- ILLEGIBLE TEXT
- SKEWED/SLANTED IMAGES
- COLORED PHOTOS
- BLACK OR VERY BLACK AND WHITE DARK PHOTOS
- GRAY SCALE DOCUMENTS

**IMAGES ARE BEST AVAILABLE COPY.**

**As rescanning documents *will not* correct images,  
please do not report the images to the  
Image Problem Mailbox.**



EXPRESS MAIL NO.: EV064839469US

PTO/SB/01A (10-00).

Approved for use through 10/31/2002. OMB 0651-0032. U.S. Patent and Trademark Office; U.S. DEPARTMENT OF COMMERCE. Under the Paperwork Reduction Project of 1995, no persons are required to respond to a collection of information unless it displays a valid OMB control number.

## DECLARATION (37 CFR 1.63) FOR UTILITY OR DESIGN APPLICATION USING AN APPLICATION DATA SHEET (37 CFR 1.76)

**Title of Invention**METHOD AND APPARATUS FOR REMOVING SULFUR FROM A  
HYDROCARBON FUEL

As the below named inventor(s), I/we declare that:

This declaration is directed to:

- ☐ The attached application, or  
☒ Application No. 10/037,486, filed on December 19, 2001,  
☐ as amended on \_\_\_\_\_ (if applicable);

I/we believe that I/we am/are the original and first inventor(s) of the subject matter which is claimed and for which a patent is sought;

I/we have reviewed and understand the contents of the above-identified application, including the claims, as amended by any amendment specifically referred to above;

I/we acknowledge the duty to disclose to the United States Patent and Trademark Office all information known to me/us to be material to patentability as defined in 37 CFR 1.56, including material information which became available between the filing date of the prior application and the National or PCT International filing date of the continuation-in-part application, if applicable; and

All statements made herein of my/our own knowledge are true, all statements made herein on information and belief are believed to be true, and further that these statements were made with the knowledge that willful false statements and the like are punishable by fine or imprisonment, or both, under 18 U.S.C. 1001, and may jeopardize the validity of the application or any patent issuing thereon.

**FULL NAME OF INVENTOR(S)**Inventor one: Benny W. ChowCitizen of: CanadaSignature: Date: April 15, 2002Inventor two: Leonard McNeillyCitizen of: CanadaSignature: Date: April 20, 2002

Inventor three: \_\_\_\_\_

Citizen of: \_\_\_\_\_

Signature: \_\_\_\_\_

Date: \_\_\_\_\_

Inventor four: \_\_\_\_\_

Citizen of: \_\_\_\_\_

Signature: \_\_\_\_\_

Date: \_\_\_\_\_

☐ Additional inventors are being named on \_\_\_\_\_ additional form(s) attached hereto.

Burden Hour Statement: This collection of information is required by 35 U.S.C. 115 and 37 CFR 1.63. The information is used by the public to file (and the PTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This form is estimated to take 1 minute to complete. This time will vary depending upon the needs of the individual case. Any comments on the amount of time you are required to complete this form should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, Washington, DC 20231. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, Washington, DC 20231.

Docket No. 130109.417

D:\267521\_1.DOC

Please type a plus sign (+) inside this box



EXPR

MAIL NO. EV064839469US

PTO/SB/81 (10-00)

Approved for use through 10/31/2002. OMB 0651-0035

U.S. Patent and Trademark Office; U.S. DEPARTMENT OF COMMERCE

Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it displays a valid OMB control number.

**ELECTION AND POWER OF  
ATTORNEY OR  
AUTHORIZATION OF AGENT**

Application Number	10/037,486
Filing Dat	Dec mber 19, 2001
First Named Inventor	Ben W. Chow
Group Art Unit	
Examiner Name	
Attorney Docket Number	130109.417

I hereby appoint:

☒ Practitioners at Customer Number

OR

☐ Practitioner(s) named below:



00500

PATENT TRADEMARK OFFICE

Name	Registration Number

as my/our attorney(s) or agent(s) to prosecute the application identified above, and to transact all business in the Patent and Trademark Office connected therewith.

Please change the correspondence address for the above-identified application to:

☐ The above-mentioned Customer Number.

OR

☐ Firm or  
Individual Name

Address

Address

City

State

ZIP

Country

Telephone

Fax

I am the:

☐ Applicant/Inventor.

☒ Assignee of record of the entire interest. See 37 CFR 3.71.

*Statement under 37 CFR 3.73(b) is enclosed. (Form PTO/SB/96).*

☒ As assignee of record of the entire interest hereby elect, under 37 C.F.R. § 3.71, to prosecute the application to the exclusion of the inventor

**SIGNATURE of Applicant or Assignee of Record**

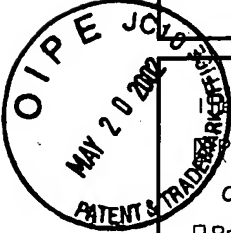
Name	Noordin S.K. Nanji – Vice-President, Strategic Development
Signature	
Date	April 26, 2002
Name	David P. Wilkinson – Vice President, Research & Development
Signature	
Date	Apr 29, 2002

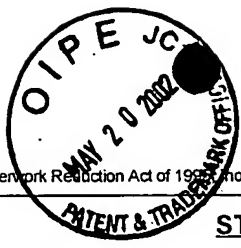
NOTE: Signatures of all the inventors or assignees of record of the entire interest or their representative(s) are required. Submit multiple forms if more than one signature is required, see below\*.

☐ \*Total of \_\_\_\_\_ forms are submitted.

Burden Hour Statement: This form is estimated to take 3 minutes to complete. Time will vary depending upon the needs of the individual case. Any Comments on the amount of time you are required to complete this form should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, Washington, DC 20231. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Assistant Commissioner for Patents, Washington, DC 20231.

C:\130109.417\267518\_1.DOC





EXPRESS MAIL NO. EV064839469US  
PTO/SB/96 (08-00)

Approved for use through 10/31/2002. OMB 0651-0031  
U.S. Patent and Trademark Office; U.S. DEPARTMENT OF COMMERCE

Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it displays a valid OMB control number.

**STATEMENT UNDER 37 CFR 3.73(b)**

Applicant/Patent Owner: Ben W. Chow et al.

Application No./Patent No.: 10/037,486 Filed/Issue Date: December 19, 2001

Entitled: METHOD AND APPARATUS FOR REMOVING SULFUR FROM A  
HYDROCARBON FUEL

Ballard Power Systems Inc.

(Name of Assignee)

a

Corporation

(Type of Assignee, e.g., corporation, partnership,  
university, government agency, etc.)

states that it is:

1. ☒ the assignee of the entire right, title, and interest; or
2. ☐ an assignee of an undivided part interest

in the patent application/patent identified above by virtue of either:

- A. ☐ An assignment from the inventor(s) of the patent application/patent identified above.  
The assignment was recorded in the United States Patent and Trademark Office at  
Reel \_\_\_\_\_, Frame \_\_\_\_\_, or for which a copy thereof is attached.

OR

- B. ☒ A chain of title from the inventor(s), of the patent application/patent identified above, to the  
current assignee as shown below:

1. From: Inventors

To: Ballard Generation Systems Inc.

**A copy of the assignment is attached**

2. From: Ballard Generation Systems Inc. To: Ballard Power Systems Inc.

**A copy of the assignment is attached.**

☐ Additional documents in the chain of title are listed on a supplemental sheet.

- ☒ Copies of assignments or other documents in the chain of title are attached.

[NOTE: A separate copy (i.e., the original assignment document or a true copy of the original document) must be  
submitted to Assignment Division in accordance with 37 CFR Part 3, if the assignment is to be recorded in the records  
of the USPTO. See MPEP 302.8]

The undersigned (whose title is supplied below) is authorized to act on behalf of the assignee.

April 26, 2002  
Date

Noordin S.K. Nanji

Typed or printed name

[Signature]  
Signature

Vice-President, Strategic-Development

Title

April 29, 2002  
Date

David P. Wilkinson

Typed or printed name

[Signature]  
Signature

Vice President, Research & Development

Title

**COPY**

EXPRESS MAIL NO. EV064839469US

ASSIGNMENT

WHEREAS, we,

Name	Post Office Address	
Benny W. Chow	681 Easterbrook Street, Coquitlam, BC, CANADA V3J 4M8	; and
Leonard McNeilly	10631 Dabney Drive #55, San Diego, CA 92126	,

(hereinafter referred to as ASSIGNORS), having post office addresses as listed above next to our names, are the joint inventors of an invention entitled

METHOD AND APPARATUS FOR REMOVING  
SULFUR FROM A HYDROCARBON FUEL

as described and claimed in the specification for which an application for United States letters patent was filed on December 19, 2001, and assigned Application No. 10/037,486;

WHEREAS, Ballard Generation Systems Inc. (hereinafter referred to as ASSIGNEE), a Canadian corporation having a place of business at 4242 Phillips Avenue, Unit C, Burnaby, British Columbia, Canada V5A 2X2, is desirous of acquiring the entire right, title and interest in and to the invention and in and to any letters patent that may be granted therefor in the United States and in any and all foreign countries;

NOW, THEREFORE, in exchange for good and valuable consideration, the receipt of which is hereby acknowledged, ASSIGNORS hereby sell, assign and transfer unto said ASSIGNEE the entire right, title and interest in and to said invention, said application and any and all letters patent which may be granted for said invention in the United States of America and its territorial possessions and in any and all foreign countries, and in any and all divisions, reissues and continuations thereof, including the right to file foreign applications directly in the name of ASSIGNEE and to claim priority rights deriving from said United States application to which said foreign applications are entitled by virtue of international convention, treaty or otherwise, said invention, application and all letters patent on said invention to be held and enjoyed by ASSIGNEE and its successors and assigns as fully and entirely as the same would have been held and enjoyed by ASSIGNORS had this assignment, transfer and sale not been made. ASSIGNORS hereby authorize and request the Commissioner of Patents and Trademarks to issue all letters patent on said invention to ASSIGNEE. ASSIGNORS agree to execute all instruments and documents required for the making and prosecution of applications for United

States and foreign letters patent on said invention, for litigation regarding letters patent, or for the purpose of protecting title to said invention or letters patent therefor.

April 15, 2002  
Date

Benny W. Chow  
Benny W. Chow

City of Burnaby )  
 )  
Province of British Columbia )

ss.

I certify that I know or have satisfactory evidence that Benny W. Chow is the person who appeared before me, and said person acknowledged that he signed this instrument and acknowledged it to be his free and voluntary act for the uses and purposes mentioned in the instrument.

Dated 15 APRIL 2002

Signature of Tanya J. Rothe  
Notary Public

Printed Name TANYA J ROTHE

My appointment is for life

April 20, 2002  
Date

Leonard McNeilly  
Leonard McNeilly

City of San Diego )  
State of California )  
Province of California )

ss.

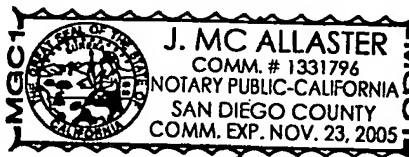
I certify that I know or have satisfactory evidence that Leonard McNeilly is the person who appeared before me, and said person acknowledged that he signed this instrument and acknowledged it to be his free and voluntary act for the uses and purposes mentioned in the instrument.

Dated April 20, 2002

Signature of J. McAllaster  
Notary Public

Printed Name J. MCALLASTER

My appointment expires 11-23-05



## ASSIGNMENT

WHEREAS, Ballard Generation Systems Inc. (hereinafter referred to as ASSIGNOR), a Canadian corporation having a place of business at 4242 Phillips Avenue, Unit C, Burnaby, British Columbia, Canada V5A 2X2, is the assignee of record of an invention entitled "METHOD AND APPARATUS FOR REMOVING SULFUR FROM A HYDROCARBON FUEL" as described and claimed in the specification for which an application for United States letters patent was filed on December 19, 2001, and assigned Application No. 10/037,486;

WHEREAS, Ballard Power Systems Inc. (hereinafter referred to as ASSIGNEE), a Canadian corporation having a place of business at 9000 Glenlyon Parkway, Burnaby, British Columbia, Canada V5J 5J9, is desirous of acquiring the entire right, title and interest in and to the invention and in and to any letters patent that may be granted therefor in the United States and in any and all foreign countries;

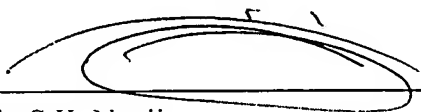
NOW, THEREFORE, in exchange for good and valuable consideration, the receipt of which is hereby acknowledged, ASSIGNOR hereby sells, assigns and transfers unto said ASSIGNEE the entire right, title and interest in and to said invention, said application and any and all letters patent which may be granted for said invention in the United States of America and its territorial possessions and in any and all foreign countries, and in any and all divisions, reissues and continuations thereof, including the right to file foreign applications directly in the name of ASSIGNEE and to claim priority rights deriving from said United States application to which said foreign applications are entitled by virtue of international convention, treaty or otherwise, said invention, application and all letters patent on said invention to be held and enjoyed by ASSIGNEE and its successors and assigns for their use and benefit and of their successors and assigns as fully and entirely as the same would have been held and enjoyed by ASSIGNOR had this assignment, transfer and sale not been made. ASSIGNOR hereby authorizes and requests the Commissioner of Patents and Trademarks to issue all letters patent on said invention to ASSIGNEE. ASSIGNOR agrees to execute all instruments and documents required for the making and prosecution of applications for United States and foreign letters

patent on said invention, for litigation regarding said letters patent, or for the purpose of protecting title to said invention or letters patent therefor.

BALLARD GENERATION SYSTEMS INC.

April 26, 2002

Date

By   
Noordin S.K. Nanji

Its Corporate Secretary

April 29, 2002

Date

By   
Dave Smith

Its Vice President, Controller

D:\130109.417\267511\_1.DOC